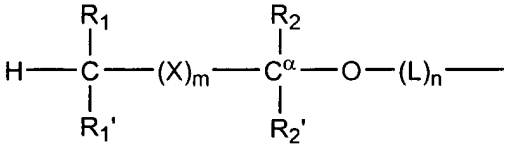
WHAT IS CLAIMED IS:

1. A method for treating a pathological condition of ocular tissue, comprising contacting a therapeutically active complex with ocular tissue, wherein the complex is formed by covalently attaching a moiety to a therapeutically active agent, resulting in a therapeutically active complex with low water solubility, thereby treating the condition.

2. The method of claim 1, wherein the moiety is an amphiphilic moiety.

3. The method of claim 2, wherein the amphiphilic moiety is selected from sulfates, sulfonates, phosphates, lipids, phospholipids, carboxylates, sulfosuccinates, arginine esters, cholesterol esters, carbamates, carbonates, or ketals.

4. The method of claim 1, wherein the moiety has the structure:

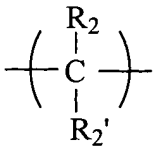


wherein:

R_1 and R_1' are independently -H, optionally substituted -O(C_1-C_{24})alkyl, -O(C_1-C_{24})alkenyl, -O(C_1-C_{24})acyl, -S(C_1-C_{24})alkyl, -S(C_1-C_{24})alkenyl, or -S(C_1-C_{24})acyl, wherein at least one of R_1 and R_1' are not –H, and wherein said alkenyl or acyl optionally have 1 to about 6 double bonds,

R_2 and R_2' are independently -H, optionally substituted -O(C_1-C_7)alkyl, -O(C_1-C_7)alkenyl, -S(C_1-C_7)alkyl, -S(C_1-C_7)alkenyl, -O(C_1-C_7)acyl, -S(C_1-C_7)acyl, -N(C_1-C_7)acyl, -NH(C_1-C_7)alkyl, -N((C_1-C_7)alkyl)$_2$, oxo, halogen, -NH_2, -OH, or -SH;

X, when present, is:



L is a valence bond or a bifunctional linking molecule of the formula-J-$(CR_2)_t$-G-, wherein t is an integer from 1 to 24, J and G are independently -O-, -S-, -C(O)O-, or -NH-, and R is -H, substituted or unsubstituted alkyl, or alkenyl;

m is an integer from 0 to 6; and

n is 0 or 1.

5. The method of claim 4, wherein m is 0, 1, or 2.

6. The method of claim 4, wherein m is 1.

7. The method of claim 1, wherein the complex has a particle size from about 10 nm up to 100,000 nm.

8. The method of claim 1, wherein the complex has a particle size from about 500 nm up to 100,000 nm.

9. The method of claim 1, wherein the complex has a particle size from about 500 nm up to about 50,000 nm.

10. The method of claim 1, wherein the complex is in a slurry comprising amorphous forms and crystalline forms.

11. The method of claim 1, wherein the complex is in substantially crystalline form.

12. The method of claim 1, wherein the complex is in substantially amorphous form.

13. The method of claim 1, wherein the pathological condition is macular degeneration, eye trauma, or retinal detachment.

14. The method of claim 1, wherein the therapeutically active agent is an antiviral nucleoside.

15. The method of claim 14, wherein the antiviral nucleoside is adefovir, ganciclovir, cidofovir, cyclic cidofovir, or tenofovir.

16. The method of claim 14, wherein the antiviral nucleoside is a derivative of azidothymidine (AZT).

17. The method of claim 1, wherein the therapeutically active agent is an anti-neoplastic nucleoside.

18. The method of claim 17, wherein the therapeutically active agent is a derivative of cytosine arabinoside, gemcitabine, 5-fluorodeoxyuridine riboside, 5-fluorodeoxyuridine deoxyriboside, 2-chlorodeoxyadenosine, fludarabine, or 1-β-D-arabinofuranosyl-guanine.

19. The method of claim 1, wherein the therapeutic agent is an antibody or a fragment thereof.

20. The method of claim 19, wherein the antibody is a polyclonal, a monoclonal, a chimeric, a single chain, or a humanized antibody.

21. The method of claim 19, wherein the antibody is a Fab fragment.

22. A method for treating a pathological condition of ocular tissue, comprising administering to a subject in need thereof an effective amount of at least one complex of a therapeutically active agent, wherein the complex of the therapeutically active agent has low water solubility and a particle size in the range of about 10 nm to about 100,000 nm, thereby treating the pathological condition.

23. A method for the slow-release delivery of a therapeutically active agent to ocular tissue, comprising contacting the ocular tissue with a complex of a therapeutically active agent, wherein the complex of the therapeutically active agent has low water solubility and a particle size in the range of about 10 nm to about 100,000 nm, thereby delivering a slow-release therapeutically active agent to ocular tissue.

24. A method for increasing residence time of a therapeutically active agent in ocular tissue, comprising covalently attaching a moiety to the therapeutically active agent to form a complex having low water solubility, providing the complex in a particle size range of about 10 nm to about 100,000 nm, and contacting the complex with ocular tissue, thereby increasing residence time of a therapeutically active agent in ocular tissue.